

NAVAL WAR COLLEGE
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JAPAN'S "OPERATION HAWAII"
AN OPERATIONAL DESIGN CASE STUDY

by

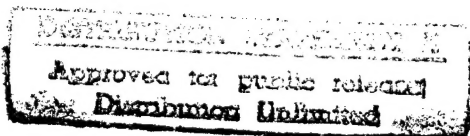
Curtis M. S. MacKenzie
Commander, U.S. Naval Reserve

A paper submitted to the faculty of the U.S. Naval War College in partial fulfillment of the requirements of the Joint Military Operations Department.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

Signature: *Curtis M. S. MacKenzie*

13 June 1997



Paper directed by
Captain George W. Jackson, USN
Chair, Joint Military Operations Department

G. W. Jackson
G. W. Jackson, CAPT, USN Date
Faculty Advisor

19970814 131

REPORT DOCUMENTATION PAGE

1. Report Security Classification: UNCLASSIFIED			
2. Security Classification Authority:			
3. Declassification/Downgrading Schedule:			
4. Distribution/Availability of Report: DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.			
5. Name of Performing Organization: JOINT MILITARY OPERATIONS DEPARTMENT			
6. Office Symbol: C		7. Address: NAVAL WAR COLLEGE 686 CUSHING ROAD NEWPORT, RI 02841-1207	
8. Title (Include Security Classification): UNCLAS JAPAN'S "OPERATION HAWAII" AN OPERATIONAL DESIGN CASE STUDY (U)			
9. Personal Authors: CURTIS M. S. MACKENZIE Commander, United States Naval Reserve			
10. Type of Report: FINAL		11. Date of Report: 13 June 1997	
12. Page Count: 35 text (35 overall)			
13. Supplementary Notation: A paper submitted to the Faculty of the NWC in partial fulfillment of the requirements of the JMO Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the NWC or the Department of the Navy.			
14. Ten key words that relate to your paper: MILITARY OPERATIONS, OPERATIONAL ART, JAPANESE ATTACK ON PEARL HARBOR, HISTORY			
15. Abstract: The Imperial Japanese Navy's strike on U.S. naval and air forces at Pearl Harbor, Hawaii on 7 December 1941 has been widely characterized as a strategic failure. Examining the attack, known to the Japanese as "Operation Hawaii," from a contemporary operational art perspective, this paper contends, however, that the preemptive attack, viewed as an operational fire for Japan's Southern Operation, was operationally sound, and tactically successful. It achieved its operational objective goal of preventing the U.S. Pacific Fleet from attacking Japan's eastern flank while Japanese military forces were engaged in the conquest of the Southern Resource Area. Crippling the Pacific Fleet afforded Japan more time to consolidate her territorial gains, and establish a defensive perimeter. Several lessons learned from the analysis, pertinent for today's operational planners, are identified.			
16. Distribution / Availability of Abstract:	Unclassified X	Same As Rpt	DTIC Users
17. Abstract Security Classification: UNCLASSIFIED			
18. Name of Responsible Individual: CHAIRMAN, JOINT MILITARY OPERATIONS DEPARTMENT			
19. Telephone: 841-6461		20. Office Symbol: C	

ABSTRACT OF

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The Imperial Japanese Navy's strike on U.S. naval and air forces at Pearl Harbor has been widely characterized as a strategic failure. Examining the attack, known as "Operation Hawaii," from a contemporary operational art perspective, this paper contends, however, that the preemptive attack, viewed as an operational fire for Japan's Southern Operation, was operationally sound, and tactically successful. It achieved its operational goal of preventing the U.S. Pacific Fleet from attacking Japan's eastern flank while Japanese military forces were engaged in the conquest of the Southern Resources Area. Crippling the Pacific Fleet afforded Japan more time to consolidate her territorial gains, and establish a defensive perimeter.

Several lessons learned from the analysis, pertinent for today's operational planners, are identified.

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"AIR RAID PEARL HARBOR. THIS IS NOT A DRILL!"¹

December 7th, 1941 at 0755 local in Hawaii was a mild, partly cloudy, quiet Sunday morning. In and around Pearl Harbor, the U.S. Pacific Fleet's new homeport, the boatswain's mates were piping "first call to colors", and the ships and air fields were just coming alive. That Sunday, however, would be anything but a routine day of rest.

Just a few minutes earlier Commander Mitsuo Fuchida, Imperial Japanese Navy, had given the attack signal, "To! To! To!", to the flight leaders of the first of two waves of an attacking Japanese naval air armada. A moment later, certain that they had caught the [Americans] unawares, [he] shouted, "Tora! Tora! Tora!" (Tiger! Tiger! Tiger!)-the code words signifying that they had achieved surprise.² Suddenly, the air was swarming with Japanese planes. Zeros seemed to be everywhere. Dive-bombers charged down at army and navy air fields, and battleships. Torpedo planes swooped down at near water level with battleships in their sights. "In the swift arcing fall of the first bomb from the first plunging warplane with the...big red spots on its wings, the quiet of serenity vomited upwards into a thunderous inferno of destruction."³ At 0945, Fuchida retired, the last of Japan's 353 air attackers⁴ to depart, leaving in their wake billows of black smoke and bright flames.

In less than two hours, the Japanese raiders had achieved their most important objective, wrecking the Pacific Fleet battle line;⁵ they had sunk or damaged all eight battleships, damaged three light cruisers, reduced three destroyers to junk and damaged one other, sunk two auxiliaries and damaged four others, destroyed 188 U.S. military aircraft and damaged another 159. Over 2,300 officers and men had been killed and more than 1,100 others wounded.⁶ Having no more battleships available in the Pacific in the near term, the United States was forced to scrap its Rainbow-5 war plan to engage the Imperial Japanese Navy in the Western Pacific; "for three months following the Pearl Harbor attack the Pacific was practically a Japanese lake."⁷ Until the Americans could reconstitute the Fleet, the United States would have to settle for a defensive strategy, based on its carrier battle groups.

Within hours of the strike on Pearl Harbor, Imperial Japanese army and naval forces began the southern advance, attacking and capturing Wake, Guam, Malaya, the Philippines and Netherlands East Indies, and drove the Royal Navy from the eastern Indian and western Pacific Oceans.⁸

INTRODUCTION

- * *What military conditions will achieve the strategic objectives in the theater of operations?*
- * *What sequence of actions is most likely to produce these conditions?*
- * *How should the commander apply resources...to accomplish that sequence of actions? - FM 100-5* ⁸

The Imperial Japanese Navy's strike on U.S. forces in and about Pearl Harbor has been considered a tactical success yet a strategic failure by many military and maritime historians.⁹ Examining Admiral (ADM) Isoroku Yamamoto's attack plan from the *Operational Art* perspective, the link between strategy and tactics,¹⁰ this paper demonstrates that the plan was operationally sound, and its execution was operationally and tactically successful, but with several significant flaws in both, creating detrimental strategic implications. The lessons derived from this examination, more than fifty years after the event, validate the current U.S. military emphasis on learning and applying operational art.

HISTORICAL PERSPECTIVE-WAR IS IMMINENT

Prior to the 1930s, Japan had not lost a war since her founding nearly 2,600 years before.¹¹ By mid 1940, however, Japan's three year old war with China had become highly problematic; the war was in a stalemate,¹² and the United States was threatening to terminate oil and scrap steel shipments if Japan did not withdraw.¹³ Japan's new national objective was to secure Southeast Asia for vital strategic and food resources, most especially oil, in order to sustain the war in

China;¹⁴ the Greater East Asia Co-Prosperity Sphere (GEACPS or Southern Resources Area) was conceived.¹⁵ Both parties held fast to their respective negotiating positions,¹⁶ and in July 1941 the United States established an oil embargo, and froze Japan's assets;¹⁷ oil stocks began to drain rapidly.¹⁸ Requiring access to oil or see her military machine grind to a halt;¹⁹ Japan now felt compelled to forcibly seize territory from Malaya south to the Dutch East Indies.²⁰ Realizing that such a move would bring her into conflict with the United States, Great Britain, the Netherlands, and possibly Australia, Japanese leaders considered the issue was not *if* there would be war, but rather, *when*.²¹

OBJECTIVES

"The focus of the...plan is the extension of operational reach, and the **denial** of operational reach to the opponent." (emphasis added)- Milan N. Vego²²

The addition to Japanese national strategic objectives of securing vital natural resources in the GEACPS was translated into a military strategy of (1) fight a limited war with the United States and Great Britain; only limited territorial concessions were sought from them,²³ (2) forcibly take control of the Southern Resources Area,²⁴ and (3) establish a defensive perimeter through the Pacific islands on the eastern flank.²⁵ Her leaders sought to replace the decades old defensive naval strategy in which the Japanese battleship fleet would wait in home waters for the decisive encounter, while the U.S. battleship fleet maneuvered west across the

Pacific. Carrier-based air forces and attack submarines would significantly attrite the Americans as they approached.²⁶ A new offensive strategy was envisioned that included a decisive defeat of the U.S. Pacific Fleet *before* it could be brought to bear near Japan's home waters.²⁷ These men believed that a series of only a few decisive battles lost by U.S. forces would so demoralize the American people that the U.S. Government would negotiate a peace on terms favorable to Japan's expansionist goals without a protracted conflict;²⁸ this was Japan's desired (strategic) end state.

Against this backdrop, and knowing that Japan could not win a war of attrition against the United States,²⁹ in January 1941 ADM Yamamoto, the Commander in Chief (CINC), Combined Fleet, conceived of a preemptive air strike on the U.S. Pacific Fleet at Pearl Harbor, Hawaii.³⁰ Calling the plan *Operation Hawaii*,³¹ his operational objective was to "cripple the U.S. Pacific Fleet severely at the beginning of hostilities,"³² "mak[ing] it impossible for the United States to attack Japan's flank while she was engaged in the conquest of the Southern Resources Area."³³ This attack would support the Japanese southern offensive planned to commence immediately upon opening hostilities, thus allowing the Japanese forces time to establish an impregnable defensive barrier before the Pacific Fleet could respond.³⁴ Additionally, ADM Yamamoto was "counting heavily on smashing the morale of the American people by sinking as many [carriers and] battleships as possible."³⁵

IDENTIFICATION OF ENEMY CRITICAL FACTORS

Analysis of historical records³⁶ reveals that the Imperial Japanese Naval leaders assessed the American Pacific forces as follows:

Critical Strengths

- Strategic: -American industrial capacity
 -Very large manpower pool
 -Resource self-sufficiency
- Operational: -Three fast carriers: *Enterprise*,
 Lexington, and *Saratoga*
 -The battleship fleet
 -Land based air forces

Critical Weaknesses

- Strategic: -Will of the American population to
 fight a war in the Western Pacific
- Operational:³⁷ -Predictability of Fleet routine, particu-
 larly regarding weekends in port.
 -Pearl Harbor's geography, with one
 narrow channel entrance which con-
 strained the massed fleet and land based
 aircraft at a location from which they
 could not sortie quickly.

The Naval General Staff and ADM Yamamoto missed several significant factors. No one seemed to have recognized the vitality of the port's support infrastructure;³⁸ particularly noteworthy was the adjacent 4.5 million barrel oil tank farm,⁴⁰ and that Pearl Harbor was the primary American advanced base from which to stage future operations in the Pacific, both defensive and offensive.⁴⁰ Additionally, the Japanese planners appear to have ignored the submarine side of the harbor⁴¹ for which Japanese shipping would pay dearly, and

the shipyard repair capabilities soon to prove their essential worth.

THE OPERATIONAL SCHEME

ADM Yamamoto's bold, unconventional plan⁴² was developed by several of Japan's few aviation-minded senior naval officers, Rear Admiral (RADM) Takijiro Onishi,⁴³ and Commander Minoru Genda, an experienced air staff officer and flier with a grasp of air power's capabilities, and a daring aviation inovator,⁴⁴ in today's parlance, an out of the box thinker. The essential aspects of the plan as approved by the Naval General Staff in the fall of 1941 are:

- A. The attack must take the Americans completely by surprise.
- B. The main target of the attack will be the U.S. carriers. The second priority target will be the land based aircraft on Oahu.
- C. All six Japanese Navy carriers must be used.
- D. The attack will utilize all types of bombing: torpedo, dive, and high-level.
- E. Fighter planes will play an active role, protecting the bombers enroute to and from the strike.
- F. The attack will take place in daylight, as close to dawn as possible.
- G. Refueling at sea will be necessary; therefore, tankers will accompany the task force.
- H. Submarines will serve to blockade the port to prevent any ships from escaping the air attack, to cut off Hawaii from the American mainland, and to provide the main force with intelligence.
- I. All planning and training must be conducted in strict secrecy.⁴⁵

The operations method of defeating the American operational center of gravity (COG), the Pacific Fleet, was to attack it directly with overwhelming force, focusing on

carriers, thus exploiting the critical vulnerability of the harbor geography at a time when the American forces were expected to be little prepared to defend or counter the attack.⁴⁶

Not having identified the strategic importance of Oahu's bases, *Operation Hawaii* failed to address an important avenue by which the American COG could have been indirectly attacked and eventually would be regenerated. Had the U.S. naval and army forces at Oahu been forced to pull back 2,000 miles to California for sustainment⁴⁷ due to destruction of shore facilities, the Japanese would have had several years to consolidate their gains while Pearl Harbor's support capabilities were rebuilt, rather than only a few months.⁴⁸

COMMAND STRUCTURE

*"Subordinate [forces] should not be put under the command of...the most cautious men. The right men...are the most **enterprising** ones." (emphasis in original)*
- Carl von Clausewitz⁴⁹

In accordance with Japanese naval tradition, ADM Yamamoto selected the most senior officers in line for operational commands for *Operation Hawaii* without regard to types of experience.⁵⁰ Vice Admiral (VADM) Nagumo was appointed CINC, 1st Air Fleet/Pearl Harbor Carrier Strike Fleet.⁵¹ Under Nagumo, Rear Admirals Yamaguchi and Hara commanded the 2nd and 5th Carrier Divisions (CARDIVs) respectively. VADM Nagumo was also assigned as commander of the 1st CARDIV. ADM Yamamoto appointed VADM Shimizu to command the 6th Fleet (Submarines)/Pearl Harbor Advance Force. See Figure 1.

The leadership concern of these appointments surrounds the experience of these men; none had any expertise in the areas they were to command;⁵² Admirals Nagumo, Yamaguchi and Hara all had little experience with aviation. Admirals Nagumo and Hara were shipboard torpedo experts,⁵³ and RADM Yamaguchi was a skilled attache' and surface officer.⁵⁴ VADM Shimizu had never set foot on board a submarine before this assignment.⁵⁵

Further, other than ADM Yamamoto none of these flag officers had been involved with developing *Operation Hawaii*. Neither VADM Nagumo nor his Chief of Staff, RADM Kusaka, had faith in it, or in naval aviation as a primary weapon.⁵⁶ One, therefore, is not surprised to learn that VADM Nagumo, at RADM Kusaka's recommendation, executed the plan timidly, and failed to exploit opportunities created by the success of the two planned strike waves.⁵⁷

Aside from these professional background concerns, it also must be highlighted that the unifying command of *Operation Hawaii* remained with ADM Yamamoto, who did not command from on the scene; he stayed behind in the Inland Sea aboard his flag ship *Nagato*.⁵⁸

DIRECTION/AXIS

Due to the great distance involved, over 3,300 miles, and the vital need to avoid any detection of the advancing carrier task force, an indirect, northern route, very infrequently

used in the late fall through winter, was selected.⁵⁹ On 26 November 1941, the Pearl Harbor Carrier Strike Fleet silently sortied from a remote northern bay in the Kuriles⁶⁰ and then transited easterly through stormy seas, refueling enroute, to reach the vicinity of Hawaii eleven days later. Following the air strike, the Fleet withdrew to the northwest for redeployment in support of Japan's advance to the south,⁶¹ and return to Japan's home waters and naval ports. This maneuver along a long, single external line of operation, a remarkable feat for a heretofore home waters navy, achieved all of its intentions; the force encountered only one ship, a Soviet merchantman,⁶² and no aircraft⁶³ while enroute, and arrived on time with the forces ready to perform their attack mission. See Figure 2.

The submarine forces had sailed from southern Japanese ports along a route across the Central Pacific. After refueling at Kwajalein and the Marshalls, they proceeded to Oahu to lie silently in wait for the events of 7 December.⁶⁴

SECTORS OF EFFORT

The Pearl Harbor strike was a Sector of Secondary Effort; it was an operational fire intended to restrict the Pacific Fleet's freedom of movement, to isolate American forces from Southeast Asia and prevent reinforcement of forces already in the Philippines.⁶⁵ The Sector of Main Effort was south of Japan through the South China and Philippine Seas into Southeast Asia.⁶⁶ Although it used all of Japan's large fast carriers,⁶⁷ *Operation Hawaii* applied economy of force; besides the six carriers, the Pearl Harbor strike support force was

composed of only two battleships, two heavy cruisers, one light cruiser with ten destroyers, and three submarines.⁶⁸ For the main effort air forces were land based on Formosa and Indochina,⁶⁹ and the vast majority of the Imperial Japanese Navy was organized into three large, mixed fleets under the Southern Command.⁷⁰

OPERATIONAL SEQUENCING

Having trained for the Pearl Harbor strike throughout the summer of 1941, the Carrier Strike Fleet was well rehearsed for its mission.⁷¹ Successful execution of *Operation Hawaii*, however, depended upon more than the Fleet's thorough preparations; carefully coordinating the attack with diplomatic efforts was crucial.⁷² As planned, the attack would occur 30 minutes after Japan's ambassador had delivered a letter to the American Secretary of State, expressing that Japan thereby broke off negotiations regarding Japan's military forces in Indochina.⁷³ The ambasssador was, however, several hours late in delivering the Japanese ultimatum, delivering it approximately one hour after the strike had begun.⁷⁴ This delay greatly vilified the Japanese in the hearts and minds of the American people.⁷⁵

The air strike was conducted very nearly precisely as planned; the carrier force arrived at the launch point on time, the waves were launched on time, and the first attackers arrived over Oahu and commenced their attack runs within minutes of the schedule. Being informed only that the attack

was to go forward,⁷⁶ VADM Nagumo, his subordinate commanders, and their staffs could only hope that the diplomatic letter had been properly delivered.

OPERATIONAL SECURITY AND SIMPLICITY

A prerequisite of ADM Yamamoto's plan was to secure its secrecy.⁷⁷ Through operational security (OPSEC), the CINC and his operational commanders sought to conceal the plan's existence, the movement of surface forces to Etorofu, and their maneuver to Hawaii.⁷⁸ During the intensive training and rehearsing during the summer and early fall 1941, efforts to maintain OPSEC remained paramount. Strict radio silence was maintained during the movement and maneuver phases.⁷⁹ The northern transit route selected for the carrier force, despite the challenges of underway refueling during winter,⁸⁰ reflected the importance the planners placed on OPSEC.

The Japanese Navy continued to broadcast messages on normal 1st Air Fleet frequencies.⁸² The purpose was to confuse American radio direction finding and message traffic analysis. It was successful; the Pacific Fleet headquarters assumed that the carriers were still in home waters.⁸²

The basically simple plan to effect a two wave air strike on the U.S. Pacific Fleet capital ships and land based aircraft was at the same time very complex. It required navigating a great distance by dead reckoning, conducting multiple challenging underway refuelings during high sea states, precise timing by multiple task forces, all done under

cover of radio silence, and hinged heavily upon achieving surprise.⁸³ *Operation Hawaii* relied upon cooperation of the enemy, and the weather for success; it depended upon the carriers being in harbor (none were in port on 7 December), the Americans remaining unaware of presence of the approaching task forces, moonlight before dawn for the launch, and clear skies for visual identification of targets over Oahu.⁸⁴ Further, the aggressive schedule did not provide flexibility to resolve difficulties encountered enroute.⁸⁶

INTELLIGENCE

"An army without secret agents [i.e. intelligence] is exactly like a man without eyes and ears." - Sun-Tzu⁸⁶

The Japanese made extensive use of intelligence data provided by military agents attached to the Japanese Embassy in Washington, and the consulate in Honolulu to ascertain fleet operating plans, intentions, underway routines, forces present in port (see figure 3), maritime patrol patterns, reports of force readiness, and assessment of the level of awareness of Japanese intentions.⁸⁷ Additional last minute Pacific Fleet locations was provided by the Advance Force submarines.⁸⁸

What the Japanese did not know was that their OPSEC was significantly compromised; many of their diplomatic radiograms were being intercepted, decoded, and translated by the Americans.⁸⁹ Had the Americans better pieced together known information, more clearly relayed it from Washington to Oahu, and operating force commanders acted upon it, U.S. forces

could have prepared for the arrival of *Operation Hawaii* forces⁹⁰ and easily eliminated VADM Nagumo's freedom of movement if not decimated his air force and several carriers, as had been demonstrated in war games conducted by the Japanese in September 1991.⁹¹

What the Americans did not know is equally significant. For several weeks before the attack, the intelligence community had lost track of Japan's CARDIVs.⁹² Yet, the American commanders did not effect adequate precautions, basing preparations on evaluated Japanese *intentions*, not *capabilities*; the Pacific Fleet command assumed the carriers were still near Japan.⁹³ From Washington to Oahu, American military commanders focused their concerns on the anticipated Japanese southward advance in the Far East, and the American forces on Luzon;⁹⁴ for the immediate future Hawaii was imagined safe.⁹⁵

OPERATIONAL SYNCHRONIZING

Operation Hawaii brought VADM Nagumo's overwhelming air power to the decisive place and time without detection. The operational momentum thus achieved enabled the attackers to accomplish the assigned strikes, and withdraw before the Americans could effectively organize a defense.⁹⁶ There were, however, no planned branches (alternative courses of action) to accommodate the Pacific Fleet fast carriers not being in port, nor any consideration of planning possible sequels (follow-on actions) should the air strike prove especially effective.⁹⁷ Further, there was no coordination between VADM

Nagumo's Carrier Strike Fleet and VADM Shimizu's Submarine Advance Force once each was underway.⁹⁸

The Advance Force was all but ineffective.⁹⁹ The five midget submarines either were detected and sunk, or grounded before the air strike; all failed to satisfactorily execute the plan.¹⁰⁰ Likewise, the fleet submarine blockade of Oahu after the air strike appears to have been totally ineffective;¹⁰¹ the only noteworthy achievement of the submarine force occurred a full month after the raid, when an I-Class submarine disabled the fast carrier *Saratoga*, recently returned to Hawaiian waters from being upgraded on the U.S. West Coast,¹⁰² forcing her withdrawal back to the Puget Sound for repairs. She would effectively be out of the fight until the Summer of 1942.¹⁰³

ANTICIPATION OF CULMINATION POINT

"Everything in war is simple, but the simplest thing [becomes] difficult." - Carl von Clausewitz¹⁰⁴

After the recovery of the two waves of strike aircraft, VADM Nagumo was uneasy, sensing he was near culmination.¹⁰⁵ Supported by his chief of staff, he elected to withdraw despite urging by his seasoned aviation staff officers, Commanders Genda and Fuchida, to exploit the Japanese advantage by pressing a second strike on additional targets such as the fuel farm, submarine piers, the shipyard and aircraft repair shops, or additional ships, or to locate and pursue the American carriers.¹⁰⁶ Further, ADM Yamamoto did not provide VADM Nagumo additional guidance of his intent; ADM

Yamamoto refused to intervene.¹⁰⁷ The cautious, unimaginative Nagumo¹⁰⁸ still was not convinced enough of the primacy of naval aviation to make an ad hoc branch decision;¹⁰⁹ Thus, in the "fog of war"¹¹⁰ the Japanese forces lost their momentum to inflict more devastating damage on the forces and facilities on Oahu.

Upon his arrival at Pearl Harbor to assume duty as CINC, U.S. Pacific Fleet later in December, Admiral Chester Nimitz wondered why the Japanese had not finished the job;¹¹¹ the shipyard was in good condition,¹¹² the submarine base had hardly been touched,¹¹³ the nearly full fuel farm was intact,¹¹⁴ and most of the damaged cruisers and several battleships would soon be ready for operations. Additionally, the three aircraft carriers and their attendant cruisers and destroyers, all away during the attack, were not affected.¹¹⁵ The new CINC knew that the old battleships, now in ruins, wouldn't have been players with carrier battle groups;¹¹⁵ being substantially slower, they could not keep up. The Pacific Fleet was far from being out of the fight.¹¹⁶

LESSONS LEARNED

Upon reflection of this examination of *Operation Hawaii* from the perspective of Operational Art, several lessons applicable to contemporary operational planning and execution may be drawn. This list is by no means exhaustive:

- * Identification of the opponent's critical factors (strengths and weaknesses, vulnerabilities and centers of gravity) must be accurate. Failure to do so results

in making inaccurate assumptions, and planning a flawed operation with unintended consequences.

- * Unity of command at the operational level enhances successful synchronization, sequencing and cooperation in plan execution. This cannot be overemphasized.
- * Select officers in operational command who have the appropriate experience and initiative. Coupling this with decentralized authority to execute contributes to quickly responding to changing circumstances.
- * Preplan options into the basic plan (known as *branches*) and envision possible actions to take upon completion of the operation (known as *sequels*). Doing so builds in flexibility, allowing the commander to remain alert for the unexpected and to capitalize on opportunities to exploit the situation; the commander preserves his/her freedom of action and momentum, while denying those to the opponent.
- * Employ deception to conceal one's own intentions and actions until it is too late for the opponent to react. Plan deception as an integral part of the operation.

CONCLUSION

"Know the enemy and know yourself; in a hundred battles you will never be in peril." - Sun-Tzu¹¹⁷

The Japanese Navy's attack on Pearl Harbor has often been considered a strategic failure; the American government and people responded by rapidly accelerating mobilization efforts for the War in the Pacific rather than quickly seeking a negotiated settlement.¹¹⁸ That Japan's military leaders so badly misread the American people does not, however, invalidate *Operation Hawaii's* operational and tactical success as an operational fire for Japan's southern advance. Noted military historian and strategist B. H. Liddell Hart commented,

"The coup brought three great advantages to Japan.
[1] The U.S. Pacific Fleet was...put out of action,

[2] The operations in the Southwest Pacific were made secure against naval interference, and...
[3] The Japanese were now allowed more time to extend and build up their defensive ring."¹¹⁹

The first of Liddell Hart's observations was precisely ADM Yamamoto's operational objective for *Operation Hawaii*. The second and third achievements directly fulfilled two of the three parts of Japan's military strategy for the Pacific War. Further, the results of the Pearl Harbor attack directly supported execution of Japan's national strategic objective to secure vital oil resources in the Southern Resources Area. How well did this work? As cited by Fleet Admiral Chester W. Nimitz and historian Elmer B. Potter, the U.S. Pacific Fleet was not able to begin offensive operations in the Pacific until March 1943,¹²⁰ fifteen months after the Pearl Harbor attack, and a year after the Japanese had achieved their main objective of conquering the Philippines, the Netherlands East Indies, Burma, and Malaya. The cost to Japan in the southern operations was very light, suffering only a few thousand casualties, and no naval losses larger than a destroyer.¹²¹

The operational flaw often noted is two-fold: the operation's planners failed to target Pearl Harbor's oil tanks, the submarine base, and shipyard repair shops; and the raid missed their prime targets, the Pacific Fleet carriers. Without these vital shore facilities, and the availability of the three Pacific Fleet carriers, the Fleet's recovery would have been much slower, delaying the American offensive until a much later date. These flaws or oversights notwithstanding, the

Japanese Navy's air strike on Pearl Harbor must be considered a success.

ADM Yamamoto tried to destroy all of the U.S. Pacific Fleet carriers one more time in June 1942. In *Operation Midway*, known in the United States as the Battle of Midway, the Japanese lost four fast carriers, a heavy cruiser, and 322 aircraft. Particularly irreplaceable, however, was the loss of over 100 experienced pilots. This major defensive victory for the Americans, Japan's first naval battle loss in the modern age, marked the turning point in the Pacific War.¹²²

Figure 1:

OPERATION HAWAII TASK FORCE ORGANIZATION

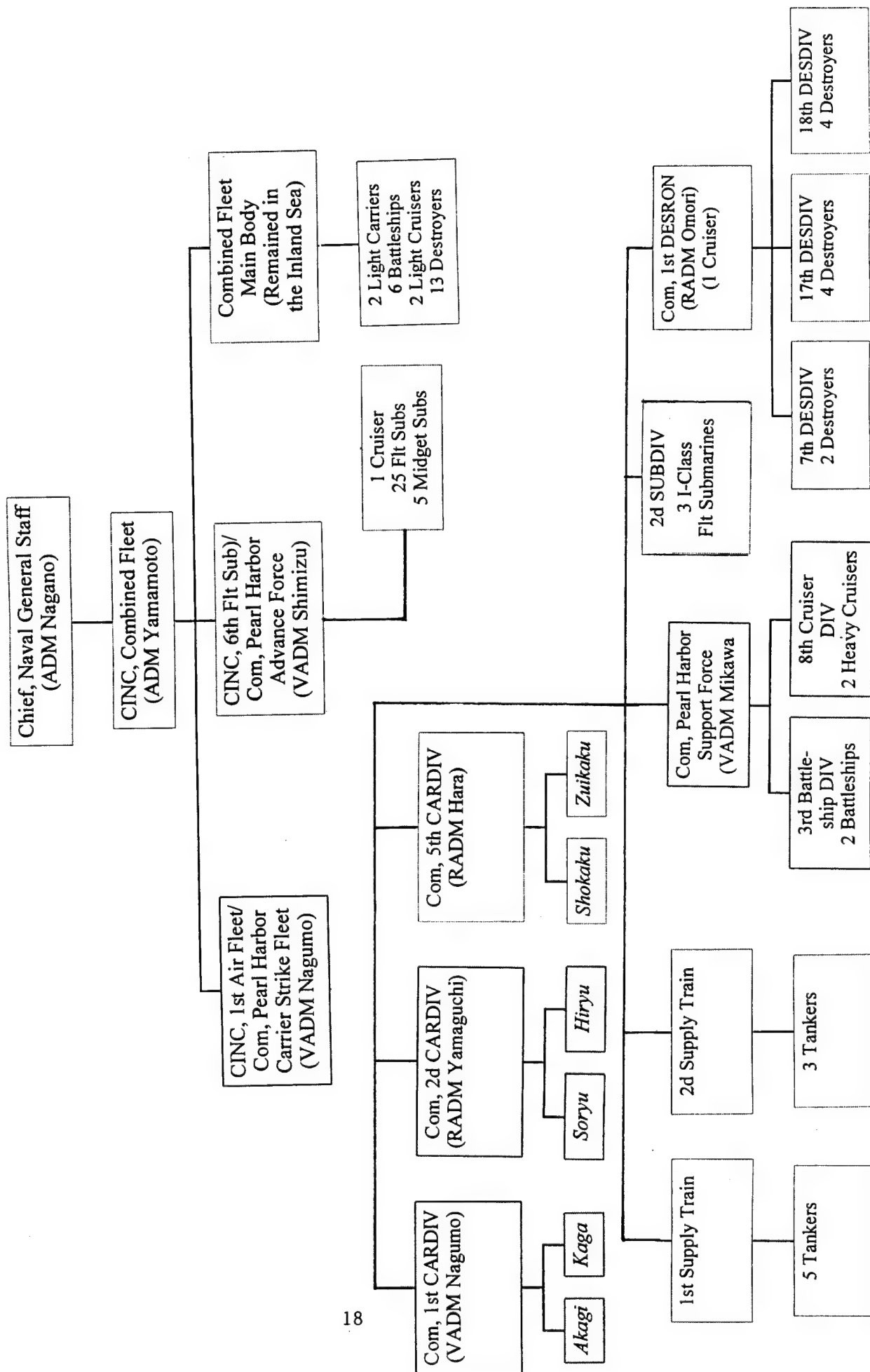
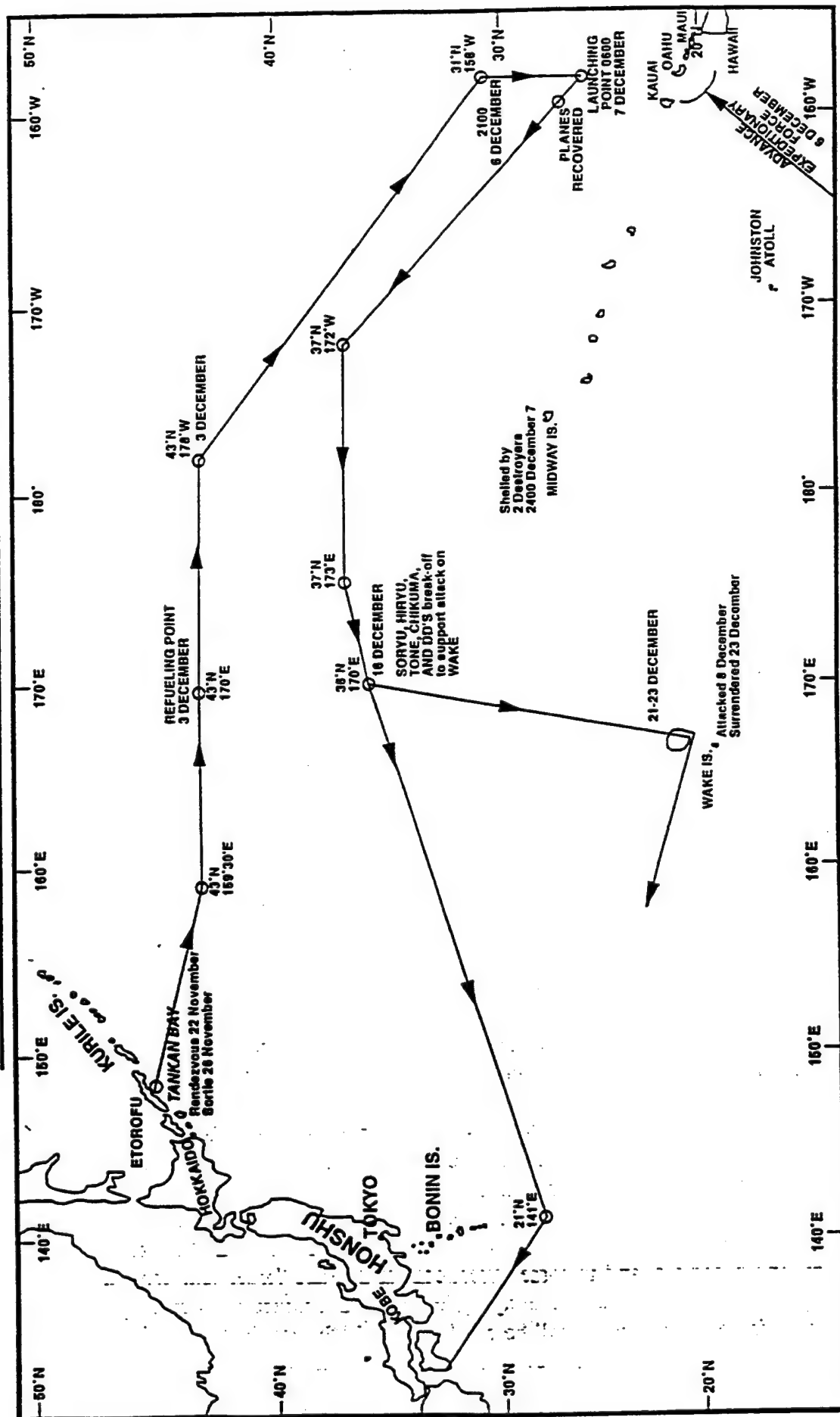


Figure 2:

ROUTE OF PEARL HARBOR STRIKING FORCE NOVEMBER - DECEMBER 1941



[illegible]

The position of ships in Pearl Harbor just before the attack.

NAVY DEPARTMENT, NATIONAL ARCHIVES

NOTES

1. Patrol Wing Two Action Report, Vol. I, quoted in Gordon W. Prange, *At Dawn We Slept: The Untold Story of Pearl Harbor* (New York: McGraw-Hill, 1981), 517; Harry Albright, *Pearl Harbor: Japan's Fatal Blunder* (New York: Hyppocrene Books, 1988), 118.

2. Gordon W. Prange, *God's Samurai: Lead Pilot at Pearl Harbor* (New York: Brassey's (US), 1990), 35.

3. A. J. Barker, *Pearl Harbor* (New York: Ballantine Books, 1969), 157.

4. Ibid., 92.

5. Samuel Eliot Morison, *The Two Ocean War* (Boston: Little, Brown and Co., 1963; reprint ed., New York: Ballantine Books, 1972), 55.

6. Barker, 158; Morison, *Two Ocean War*, 57-58. Battle-ship damage was as follows: *Arizona* and *Oklahoma* were total losses; *West Virginia* and *California* were sunk at their berths; *Nevada* was beached to prevent sinking in the channel; *Pennsylvania* (in drydock), *Maryland* and *Tennessee* all received some damage, but of a less severe nature. These last three all returned to the West Coast for repairs. The former battleship *Utah*, now a target ship, was also sunk at its berth.

7. Samuel Eliot Morison, *Strategy and Compromise* (Boston: Little, Brown and Co., 1958), 68.

8. Headquarters, U.S. Dept. of the Army, *Field Manual (FM) 100-5: Operations* (Washington: 1994), 6-2; U.S. Dept. of Defense, *Doctrine for Joint Operations, Joint Pub 3-0* (Washington: 1995), II-3.

9. Such historians and analysts as Henry Albright, A.J. Barker, Paul S. Dull, Major General J.F.C. Fuller, D. Clayton James, Samuel Eliot Morison, Michael Slackman, and John J. Stephan.

10. The analysis is conducted using contemporary Operational Art philosophy as expressed by Professor Milan N. Vego, in "Operational Art," Unpublished Paper, U.S. Naval War College, Newport, RI: August 1996; _____, "Operational Factors," Unpublished Paper, U.S. Naval War College, Newport: September 1996; _____, "Fundamentals of Operational

Design," Unpublished Paper, U.S. Naval War College, Newport: August 1996; and *Joint Pub 3-0*.

11. Edwin P. Hoyt, *Japan's War: The Great Pacific Conflict, 1853-1952* (New York: McGraw-Hill, 1986), 1-2.

12. *Ibid.*, 169.

13. *Ibid.*, 194,; Paul S. Dull, *A Battle History of the Imperial Japanese Navy (1941-1945)* (Annapolis: Naval Institute Press, 1978), 5; Michael Slackman, *Target: Pearl Harbor* (Honolulu: University of Hawaii Press, 1990), 5.

14. Major General J.F.C. Fuller, *The Second World War, 1939-1945* (New York: Duell, Sloan and Pierce, 1949), 129; Asada Sadao, "The Japanese Navy and the United States," in *Pearl Harbor as History: Japanese-American Relations 1931-1941* ed. Dorothy Borg and Shumpei Okamoto (New York: Columbia University Press, 1973), 244.

15. Hoyt, 194; D. Clayton James, "American and Japanese Strategies in the Pacific" in *Makers of Modern Strategy* ed. Peter Paret (Princeton: Princeton University Press, 1986), 706; John J. Stephan, *Hawaii Under the Rising Sun* (Honolulu: University of Hawaii Press, 1984), 72, 78.

16. U.S. Congress, Joint Committee on the Investigation of the Pearl Harbor Attack, *Investigation into the Pearl Harbor Attack*, Report (Washington: U.S. Govt. Print. Off., 1946), 48.

17. *Ibid.*; James, 709; Morison, *Two Ocean War*, 34; Prange, *At Dawn*, 167.

18. Sadao, 254; Stephan, 87.

19. E. B. Potter and Chester W. Nimitz, ed., *The Great Sea War: The Story of Naval Action in World War II* (Englewood Cliffs, NJ: Prentice-Hall, 1960), 287.

20. Shigeru Fukudome, "Hawaii Operation," United States Naval Institute *Proceedings*, December 1955, 1321.

21. *Ibid.* 1316; Yoji Koda, "A Commander's Dilemma: Admiral Yamamoto and the 'Gradual Attrition' Strategy," *Naval War College Review*, Autumn 1993, 69; Akira Iriye, *The Origins of the Second World War in Asia and the Pacific* (London: Longman Group UK Ltd., 1987), 182; B. H. Liddell Hart, *This*

- Expanding War* (London: Faber and Faber Ltd., 1942), 148;
Prange, *At Dawn*, 16; Sadao, 250, 259; Slackman, 5.
22. Vego, *Fundamentals of Operational Design*, 25.
23. Fuller, 129; James, 707; Sadao, 256, Slackman, 10;
Stephan, 80; U.S. Dept. of the Army, *The War With Japan, Part I* (West Point, U.S. Military Academy, 1948), 9.
24. Cyril Falls, *The Art of War from the Age of Napoleon to the Present Day* (New York: Oxford University Press, 1961), 185; Slackman, 9; U.S. Dept. of the Army, *The War*, 9; Roberta Wohlstetter, *Pearl Harbor: Warning and Decision* (Stanford: Stanford University Press, 1962), 368.
25. Albright, 55; Feis, 191; James, 707; Sadao, 255;
Slackman, 9; Stephan, 80, 81; U.S. Dept. of the Army, *The War*, 9; Wohlstetter, 368.
26. Albright, 48; Barker, 41; Fukudome, 1315; Koda, 66;
Stephan, 72.
27. Fuller, 131; Koda, 69-70.
28. Fuller, 131; Hoyt, 223; Iriye, 182; Liddell Hart, 147, Prange, *At Dawn*, 171; Sadao, 236; Slackman, 10; Stephan, 88; Headquarters, Army Air Forces, Assistant Chief of Air Staff-Intelligence, *Mission Accomplished* (Washington: 1946), 1.
29. Albright, 330; Hoyt, 187; Prange, *At Dawn*, 98;
Slackman, 10; U.S. Congress, Joint Committee on the Investigation of the Pearl Harbor Attack, 53.
30. Fukudome, 1317; Koda, 70; Sadao, 255; U.S. Congress, Joint Committee on the Investigation of the Pearl Harbor Attack, 53.
31. Albright, 49.
32. Takijiru Onishi, quoted in Prange, *At Dawn*, 21.
33. Potter and Nimitz, 193.
34. Fukudome, 1320; James, 707.
35. Prange, *At Dawn*, 21
36. Barker, 22; Fukudome, 1317; Minaru Genda, "Analysis of the Pearl Harbor Attack," in *The Pearl Harbor Papers*:

Inside the Japanese Plans ed. Donald M. Goldstein and Katherine V. Dillon (New York: Brassey's (US), 1993), 18; Liddell Hart, 147; Sadao, 237, 238, 243; Slackman, 12; U.S. Congress, Joint Committee on the Investigation of the Pearl Harbor Attack, 53; U.S. Dept. of the Army, *The War*, 6-7, 9.

37. It is acknowledged that in an operation of small scale such as *Operation Hawaii* (with only one tactical action) it is very nearly impossible to distinguish between operational and tactical levels of strengths and weaknesses.

38. Barker, 144; Fuller, 135; Hoyt, 234; Prange, *At Dawn*, 63; Slackman, 23.

39. Albright, 130; Barker, 144; Prange, *At Dawn*, 63; Slackman, 90, 236.

40. Prange, *At Dawn*, 63, 97; Slackman, 65; Stephan, 75.

41. Albright, 130; Dull, 19.

42. Fukudome, 1317-1318; Prange, *At Dawn*, 16, 20; Slackman, 9.

43. Fukudome, 1318; Prange, *At Dawn*, 18; Slackman, 12.

44. Prange, *At Dawn*, 20.

45. Ibid., 25-26; Albright, 75; Minoru Genda, "Affidavit of Minoru Genda" in *The Pearl Harbor Papers: Inside the Japanese Plans* ed. Donald M. Goldstein and Katherine V. Dillon (New York: Brassey's (US), 1993), 14; Genda, "Analysis . . .," 18; Slackman, 12.

46. Slackman, 21.

47. Slackman, 90, 236; Hoyt, 234.

48. Barker, 144.

49. Carl von Clausewitz, *On War*, 8th ed., ed. and transl. Michael Howard and Peter Peret (Princeton: Princeton University Press, 1984), 632.

50. Barker, 30, 31.

51. Fukudome, 1325.

52. Prange, *At Dawn*, 210.

53. Ibid., 109, 210; Hoyt, 234.
54. Prange, *At Dawn*, 110.
55. Ibid., 202-203.
56. Albright, 53; Hoyt, 234; Prange, *At Dawn*, 225-226.
57. Hoyt 234.
58. Prange, *At Dawn*, 232, 432.
59. Albright, 50-51; Feis, 270; Kusaka, 140; Morison, *Two Ocean War*, 39-40; Raymond O'Connor, commentary, *The Japanese navy in World War II* (Annapolis: Naval Institute Press, 1969), 19.
60. Iriye, 182; Slackman, 23.
61. Dull, 19; James, 707.
62. Morison, *Two Ocean War*, 40.
63. Ibid.
64. Ibid., 42; Fukudome, 1326; Brigadier Peter Young, ed., *The World Almanac of World War II* (New York: Bison Books, 1986), 127.
65. James, 707; Prange, *At Dawn*, 225; Slackman, 9.
66. Falls, 185; O'Connor, 19.
67. Prange, *At Dawn*, 110, 225.
68. Fukudome, 1325-1326; Slackman, 22.
69. Prange, *At Dawn*, 224.
70. Ibid., 224-225.
71. Albright, 52; Genda, "How...Materialized," 15; Kusaka, 144-145; Slackman, 15, 22.
72. Albright, 81; Fukudome, 1323; Iriye, 182; Prange, *At Dawn*, 466-467, 502; Slackman, 21.
73. Prange, *At Dawn*, 466-467.
74. Ibid., 580; Fukudome, 1324; Iriye, 183; Young, 131.

75. Fukudome, 1315; Morison, *Two Ocean War*, 58; Prange, *At Dawn*, 562-582.
76. O'Connor, 20.
77. Albright, 56; Fukudome, 1318; Kusaka; 142.
78. Albright, 72.
79. Fukudome, 1326; Prange, *At Dawn*, 442; Slackman, 69.
80. Kusaka, 141.
81. Slackman, 33.
82. Prange, *At Dawn*, 353, 440.
83. Albright, 56; Slackman, 69.
84. O'Connor, 20.
85. Albright, 97.
86. Sun-Tzu, *The Art of War* transl. Samuel B. Griffin (New York: Oxford University Press, 1963), 149.
87. Hoyt, 222-223; Prange, *At Dawn*, 252, 370, 442, 443; Slackman, 30; U.S. Congress, Joint Committee on the Investigation of the Pearl Harbor Attack, 55.
88. Albright, 75; Prange, *At Dawn*, 479.
89. Prange, *At Dawn*, 118, 355, 372.
90. Albright, 83, 88.
91. Ibid., 53; Prange, *At Dawn*, 93-95; Slackman, 18; Stephan, 75, 82; Wohlstetter, 371. The September 1941 war game conducted at the Naval War College, Tokyo, convinced ADM Yamamoto and other Japanese flag officers that the attack could be successful only if the force achieved surprise. In Also noteworthy is the 1938 U.S. Fleet maneuvers, in which an undetected *Blue* force of carrier-based aircraft succeeded in knocking out Oahu's airfields, and caused considerable damage to surface forces at anchor in the harbor. The defending *Red* force carrier-based aircraft and cruisers survived the strike, but were unable to locate the *Blue* force units. This exercise mirrors the actual air strike in *Operation Hawaii*.

92. Albright, 90; Prange, *At Dawn*, 440.
93. Ibid.
94. Prange, *At Dawn*, 435, 455, 464, 470, 527.
95. Albright, 84; Prange, *At Dawn*, 435, 463, 470, 559.
96. Kusaka, 157.
97. Albright, 56, 329; Fukudome, 1327.
98. Fukudome, 1326.
99. Young, 133.
100. Fukudome, 1328; Hoyt, 227; Prange, *At Dawn*, 540; Slackman, 155.
101. Slackman, 236-237.
102. Potter and Nimitz, 290; Prange, *At Dawn*, 392, 460; Slackman, 236, 259.
103. Dull, 100; Hoyt 239, 240; Potter and Nimitz, 296.
104. Clausewitz, 119.
105. Albright, 131, 176, 179, 329; Dull, 19; Hoyt, 233; Prange, *At Dawn*, 541-550; Slackman, 192.
106. Albright, 130-131; Fukudome, 1330; Hoyt, 228; Prange, *At Dawn*, 542, 543; Young, 133.
107. Albright, 131, 330; Prange, *At Dawn*, 548.
108. Albright, 176; Barker, 152; Hoyt, 231.
109. Albright, 179; Barker, 152; Prange, *At Dawn*, 545; Slackman, 192.
110. Clausewitz, 140: "...[T]he general unreliability of all information presents a special problem in war: all action takes place, so to speak, in a kind of twilight, which, like fog or moonlight, often tends to make things seem grotesque and larger than they really are... Whatever is hidden from full view in this feeble light has to be guessed at by talent, or simply left to chance."
111. Hoyt, 234; Prange, *At Dawn*, 549.

112. Barker, 144; Dull, 19; Morison, *Two Ocean War*, 58.
113. Dull, 19.
114. Ibid.; Barker, 144; Morison, *Strategy*, 67, Young,
133.
115. Albright, 83; Hoyt, 234.
116. Prange, *At Dawn*, 549; Slackman, 236; Young, 133.
117. Sun-Tzu, 84.
118. Dull, 20; Morison, *Two Ocean War*, 58; Slackman, vii,
272.
119. Captain Sir Basil Liddell Hart, from his
introduction to Barker, 6-7.
120. Potter and Nimitz, 307-308.
121. Ibid., 212.
122. Ibid., 246.

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